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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,454	02/26/2004	Sarvar Patel	29250-002013/US	4912
7590 07/01/2010 HARNESS, DICKEY & PIERCE, P.L.C. P.O. Box 8910 Reston, VA 20195				
EXAMINER				
TOLENTINO, RODERICK				
ART UNIT		PAPER NUMBER		
2439				
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07/01/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/786,454

**Applicant(s)**

PATEL ET AL.

**Examiner**

Roderick Tolentino

**Art Unit**

2439

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04/08/2010.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-24 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1 – 24 are pending.

***Response to Arguments***

2. Applicant's arguments with respect to claims 1 and 24 have been considered but are moot in view of the new ground(s) of rejection, as necessitated by amendment by applicant made on 04/08/2010.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aull U.S. Patent No. (7,275,155) in view of Malcolm et al. U.S. PG-Publication No. (2004/0078334).
5. As per claims 1 and 24, Aull teaches the first cryptosync having a life limited to the communication session, the communication session being defined as a period of time a channel for communication exists between the two communication devices based the second cryptosync having a life extending over multiple communication sessions (Aull, Col. 2 Lines 63 – 67, second certificate replacing an expiring but NOT

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expired certificate) but fails to teach deriving, at a network element, a value of a first cryptosync for the communication session based on a value of a second cryptosync. However, in an analogous art Malcolm teaches deriving, at a network element, a value of a first cryptosync for the communication session based on a value of a second cryptosync (Malcolm, Paragraph 0145, certificate based on root certificate).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use Malcolm's Information management system with Aull's chain of trust processing because it offers the advantage of ensuring that the transmission of data by their staff is always carried out securely (Malcolm, Paragraph 0028).

6. Claims 2 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aull U.S. Patent No. (7,275,155) in view of Malcolm et al. U.S. PG-Publication No.

(2004/0078334) in further view of Rezaifar et al. U.S. Patent No. (6,980,658).

7. As per claim 2, Aull in combination with Sunder fails to teach the second cryptosync is used for message encryption by at least one of the two devices. However, in an analogous art Rezaifar teaches the second cryptosync is used for message encryption by at least one of the two devices (Rezaifar, Col. 3 Lines 36 – 45, mobile devices and base stations).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art, to use Rezaifar's method and apparatus for encrypting transmissions in a communication system with Aull's chain of trust processing because

it offers the advantage of maintaining encryption protocols to prevent the disclosure of communications between parties (Rezaiifar, Col. 1 Lines 66 – 67 and Col. 2 Lines 1 – 2).

8. As per claim 3, Aull as modified teaches the second cryptosync is used for verifying message integrity by at least one of the two devices (Rezaiifar, Col. 2 Lines 39 – 48, verification).

9. As per claim 4, Aull as modified teaches the second cryptosync is used for verifying message integrity by at least one of the two devices (Rezaiifar, Col. 2 Lines 39 – 48, verification).

10. As per claim 5, Aull as modified teaches the second cryptosync changes between communication sessions (Rezaiifar, Col. 6 Lines 41 – 44, different cryptosyncs).

11. As per claim 6, Aull as modified teaches deriving step derives the first cryptosync as at least a portion of the second cryptosync (Rezaiifar, Col. 2 Lines 25 – 38, creates two cryptosync values).

12. As per claim 7, Aull as modified teaches the deriving step derives the first cryptosync as at least a portion of the second cryptosync and a fixed bit sequence (Rezaiifar, Col. 4 Lines 46 – 62, bit sequence).

13. As per claim 8, Aull as modified teaches the deriving step derives most significant bits of the first cryptosync as the portion of the second cryptosync and derives least significant bits of the first cryptosync as the fixed bit sequence (Rezaiifar, Col. 4 Lines 46 – 62, bit sequence).

14. As per claim 9, Aull as modified teaches the fixed bit sequence is a string of 0s (Rezaiifar, Col. 9 Lines 11 – 22, EID value of Zero).
15. As per claim 10, Aull as modified teaches the deriving step derives a 32 most significant bits of the first cryptosync as the second cryptosync and derives a 32 least significant bits of the first cryptosync as a string of 0s (Rezaiifar, Col. 9 Lines 11 – 22, EID value of Zero).
16. As per claim 11, Aull as modified teaches the deriving step derives a portion of the first cryptosync as the second cryptosync (Rezaiifar, Col. 2 Lines 25 – 38, creates two cryptosync values).
17. As per claim 12, Aull as modified teaches the deriving step derives a first portion of the first cryptosync as the second cryptosync and derives a second portion of the first cryptosync as a fixed bit sequence (Rezaiifar, Col. 4 Lines 46 – 62, bit sequence).
18. As per claim 13, Aull as modified teaches the fixed bit sequence is a string of 0s (Rezaiifar, Col. 9 Lines 11 – 22, EID value of Zero).
19. As per claim 14, Aull as modified teaches the deriving step comprises:  
performing a pseudo-random function on the second cryptosync; and generating the first cryptosync from output of the pseudo-random function (Rezaiifar, Col. 8 Lines 15 – 21, randomly chosen).
20. As per claim 15, Aull as modified teaches the generating step generates the first cryptosync as the output of the pseudo-random function (Rezaiifar, Col. 8 Lines 15 – 21, randomly chosen).

21. As per claim 16, Aull as modified teaches the deriving step is performed at a base station (Rezaiifar, Col. 3 Lines 36 – 45, mobile devices and base stations).
22. As per claim 17, Aull as modified teaches the deriving step is performed at a mobile station (Rezaiifar, Col. 3 Lines 36 – 45, mobile devices and base stations).
23. As per claim 18, Aull as modified teaches encrypting a frame of information to send from the at least one of the two devices using the first cryptosync (Rezaiifar, Col. 2 Lines 19 – 23, encryption).
24. As per claim 19, Aull as modified teaches the frame of information is a radio link protocol, RLP, frame (Rezaiifar, Col. 6 Lines 45 – 56, RLP frames).
25. As per claim 20, Aull as modified teaches incrementing the first cryptosync after the encrypting step (Rezaiifar, Col. 2 Lines 38 - 48, incrementing).
26. As per claim 21, Aull as modified teaches decrypting a frame of information received at the at least one of the two devices using the first cryptosync (Rezaiifar, Col. 5 Lines 56 – 67, decryption).
27. As per claim 22, Aull as modified teaches the frame of information is a radio link protocol, RLP, frame (Rezaiifar, Col. 6 Lines 45 – 56, RLP frames).
28. As per claim 23, Aull as modified teaches incrementing the first cryptosync after the decrypting step (Rezaiifar, Col. 2 Lines 38 – 48, incrementing).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roderick Tolentino whose telephone number is (571) 272-2661. The examiner can normally be reached on Monday - Friday 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Roderick Tolentino  
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Art Unit 2439

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